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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/723,803	11/25/2003	Ryuichi Iwamura	SON5180.33A1	9764

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EXAMINER

LIANG, REGINA

ART UNIT PAPER NUMBER

2629

DATE MAILED: 11/14/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/723,803

Applicant(s)

IWAMURA, RYUICHI

Examiner

Regina Liang

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 September 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

1. This office action is response to amendment filed 9/5/06. Claims 1-21 are pending in the application.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 1-21 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

The specification disclose a plurality of normal mode colors and a plurality of power saving mode colors, assigning one power saving mode color to a normal mode color. The specification does not disclose what are the colors in each of the plurality of normal mode colors, what is the color difference between each normal mode? Such as in Fig. 3 of the specification, what are the colors in each normal modes 104-110, what is the color difference between each of the normal modes 104-110?

The specification discloses "that a graphic memory within the processor usually stores three (Red, Green, Blue) 8-bit data per pixel" (lines 1-3 in [0034]). This seems that the full 8-bit Red, Green and Blue colors is a normal color mode for the display, the specification does not disclose what are the other R, G and B colors in different normal modes. Such as in Fig. 3 of the

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specification, what colors are in normal mode 106? What colors are in normal mode 108?

Therefore it is not enabling as to what is normal mode color.

The specification also does not disclose what are the colors in each of the plurality of power saving modes, and what is color difference between each power saving mode? Such as in Fig. 3 of the specification, what are the colors in each power saving modes 114-120, what is color different between the power saving modes 114-120? The specification disclose “darker colors are preferable for power saving”, the specification does not disclose what are the color difference between a normal mode color and a power saving mode color assigned to the normal mode color, how to assign a power saving mode color to a normal mode color, and how to save power for switching to the assigned power saving mode color?

In addition to the above, Fig. 4 is used to illustrate selection of power saving mode color, however it is not clear what colors constitutes power savings since all colors in the color selection window can be used. Therefore it is not enabling as to what is power savings mode color.

4. Claims 1-21 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

The specification does not disclose “said first and second power saving mode colors being different from each other and the first and second normal mode color” (claim 1), “first and

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second normal mode colors and the first and second power saving mode colors each comprise red, blue and green components; and therein the first and second power saving mode colors are capable of having different values for each of the red, blue and green components” (claims 5 and 12), “the first and second normal mode colors and the first and second power saving mode colors each comprise hue, saturation and luminance components; wherein the hue, saturation and illumination components can be varied between each of the power saving mode colors” (claims 6 and 13), “providing a plurality of power saving mode colors, each power saving mode color comprising different colors” (claim 8), “wherein each of the power saving mode colors are different from each other and the normal mode colors” (claim 14) as is now claimed.

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 14-21 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

As to claim 14, it is not clear is this a method claim or apparatus claim since the preamble is directed to a display but the body fails to set forth any physical means in support thereof.

Drawings

7. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the “first and second normal mode colors each comprise red, blue and green components” (claim 5), “the first and second normal

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mode color each comprise each comprise hue, saturation and luminance components” (claim 6)
“plurality of normal mode colors each comprise red, blue and green components” (claim 12),
“the plurality of normal mode colors each comprise hue, saturation and luminance components”
(claim 13) must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 1-3, 5, 7-10, 12, 14-17, 19-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Siwinski (US 2002/0180723) in view of Hashimoto (US 2006/0208982).

In view of 112 1st rejection, the claims are rejected as best as understood.

As to claims 1, 8, 14, Siwinski discloses an apparatus for controlling power consumption of an EL display, comprising a processor (38, 42 in Fig. 3), the processor is configured to provide a plurality of normal mode colors (full colors red, green and blue) for output on the display. Siwinski also disclose the processor is configured to switch the normal mode to a power saving mode for conserving power in the EL display.

Siwinski does not disclose the power saving mode having a plurality of power saving mode colors, and each power saving mode color comprising different colors.

However, Hashimoto teaches a display device having a plurality of normal mode colors (full red, green and blue colors), a plurality of power saving mode colors (8-colors), the images are displayed in full red, green and blue colors in a normal mode or the images are displayed in power saving 8-colors mode for conserving power in the display device (page 12, [0170]-[0171]; Figs. 22, 23 and page 28, [0351]-[0357]; Hashimoto teaches using full 6-bit red color in the normal mode color and 3-bit red in the power saving 8-colors, this corresponds to assigning each power saving mode color (3-bit red) to a normal mode color (6-bit red)). Thus it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the power saving mode of Siwinski to have a plurality of power saving mode colors as taught by

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Hashimoto so as to reduce the power consumption in a color display device (page 7, [0081]-[0085] of Hashimoto).

As to claims 2, 10 and 17, Siwinski teaches a normal mode color is reversed during the power saving display mode (e.g., to a black color or white color).

As to claim 3, 9, and 15-16, Hashimoto teaches using full 6-bit red color in the normal mode color and 3-bit red in the power saving 8-colors, this corresponds to assigning each power saving mode color (3-bit red) to a normal mode color (6-bit red).

As to claims 5, 12, Hashimoto teaches the normal mode colors and the power saving mode colors each comprise red, blue and green components.

As to claims 7 and 21, Siwinski teaches the display comprising an organic electroluminescent display ([0008]).

As to claims 19, 20, Siwinski teaches the power saving display mode is entered manually or automatically ([0014] in pages 1-2).

10. Claims 4, 11, 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Siwinski and Hashimoto as applied to claims 1, 8, 14 above, and further in view of Kimoto (US 6,054,981).

It is noted that Siwinski as modified by Hoshimoto does not specifically disclose a power saving indicator, the power saving indicator showing the reduction in energy consumed by the display when the power saving display mode. Kimoot is cited to teach a power saving modes displaying device similar to Siwinski. Kimoto further discloses using a power saving indicator, the power saving indictor (34) showing the reduction in energy consumed by the display when in

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the power saving display mode (col. 4, lines 46-48). Thus it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the device of Siwinski to have the feature of the power saving modes indicator as taught by Kimoto because Kimoto can provide an indication to the user when the power saving mode is in used.

11. Claims 6 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Siwinski and Hashimoto as applied to claims 1, 8 above, and further in view Beaudoin et al (US 2004/0160447).

Siwinski as modified by Hashimoto does not disclose each of the normal mode colors and power saving mode colors comprise hue, saturation and luminance components. However, Beaudoin teaches RGB is a color pixel control model that uses the three primary color to from each of the pixels of a color image (lines 1-4 of [0003]), and other pixel control models exist that control pixels in the display, such as an HSL (hue, saturation and luminance) can be used to control the color (hue), the strength of the color, or how far it is from neutral gray (saturation), and the intensity of light reflected or transmitted by a color (luminance) (lines 1-6 of [0004]). Thus it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the device of Siwinski as modified by Hashimoto to have the HSL in each of the normal mode colors and power saving mode colors as taught by Beaudoin so as to provide a finer color resolution for each of the color pixel control.

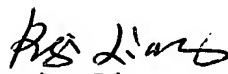
Response to Arguments

12. Applicant's arguments with respect to claims 1-21 have been considered but are moot in view of the new ground(s) of rejection.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Regina Liang whose telephone number is (571) 272-7693. The examiner can normally be reached on Monday-Friday from 8AM to 5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Hjerpe, can be reached on (571) 272-7691. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Regina Liang
Primary Examiner
Art Unit 2674

11/10/06